



Department: School of Materials Science and Engineering

Professional field: Material Science and Engineering

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Profile

Male, Doctor of Engineering, researcher/doctoral supervisor. Graduated from Sichuan University with a PhD in June 2004; successively engaged in post-doctoral research at Inje University in South Korea and Peking University; in July 2004, worked as an assistant researcher at East China University of Science and Technology (School of Materials Science and Engineering), and as an associate researcher in September 2006, worked as a researcher in September 2011, and teaching as a doctoral supervisor since March 2012.

Research Field

Biomaterials

Research results and selected published papers

1. Xinglong Hu, Shiqi Mei, Fan Wang, Songchao Tang, Dong Xie, Chao Ding, Wenli Du, Jun Zhao*, Lili Yang*, Zhaoying Wu, Jie Wei*. A microporous surface containing Si₃N₄/Ta microparticles of PEKK exhibits both antibacterial and osteogenic activity for inducing cellular response and improving osseointegration. *Bioact Mater* 2021;6(10):3136-3149.
2. Xinglong Hu, Shiqi Mei, Fan Wang, Jun Qian, Dong Xie, Jun Zhao*, Lili Yang*, Zhaoying Wu, Jie Wei*. Implantable PEKK/tantalum microparticles composite with improved surface performances for regulating cell behaviors, promoting bone formation and osseointegration. *Bioact Mater* 2021;6(4):928-940.
3. Liang Cai, Yongkang Pan, Songchao Tang, Quan Li, Tingting Tang, Kai Zheng, Aldo R. Boccaccini, Shicheng Wei, Jie Wei*, Jiacaan Su*. Macro-mesoporous composites containing PEEK and mesoporous diopside as bone implants: characterization, in vitro mineralization, cytocompatibility, and vascularization potential and osteogenesis in vivo. *J Mater Chem B* 2017;5(42):8337-8352.
4. Liang Cai, Jue Zhang, Jun Qian, Quan Li, Hong Li, Yonggang Yan, Shicheng Wei, Jie Wei*, Jiacaan Su*. The effects of surface bioactivity and sustained-release of genistein from a mesoporous magnesium-calcium-silicate/PK composite stimulating cell responses in vitro, and promoting osteogenesis and enhancing osseointegration in vivo. *Biomater Sci* 2018;6:842-853.
5. Jue Zhang, Wu Wei, Lili Yang, Yongkang Pan, Xuehong Wang, Tinglan Wang, Songchao Tang, Yuan Yao, Hua Hong*, Jie Wei*. Stimulation of cell responses and bone ingrowth into macro-microporous implants of nano-bioglass/polyetheretherketone composite and enhanced antibacterial activity by release of hinokitiol. *Colloid Surface B* 2018;164:347-357.
6. Shiqi Mei, Lili Yang, Yongkang Pan, Deqiang Wang, Xuehong Wang, Tingting Tang*, Jie Wei*. Influences of tantalum pentoxide and surface coarsening on surface roughness, hydrophilicity, surface energy, protein adsorption and cell responses to PEEK based biocomposite. *Colloid Surface B* 2019;174:207-215.
7. Zhiyan Xu, Han Wu, Fan Wang, Rames Kaewmanee, Yongkang Pan, Deqiang Wang, Pengyu Qu, Zhikang Wang, Gangfeng Hu*, Jun Zhao, Ruiyang Zhao, Jie Wei*. A hierarchical nanostructural coating of amorphous silicon nitride on polyetheretherketone with antibacterial activity and promoting responses of rBMSCs for orthopedic applications. *J Mater Chem B* 2019;7(39):6035-6047.
8. Lishu Ren, Songchao Tang*, Xuening Shen, Chao Gao, Yun Kyung Jung, Dongliang Wang*, Axiang He, Lili Yang, Jung-Woog Shin, Jie Wei. Influences of sodium tantalite submicro-particles in polyetheretherketone based composites on behaviors of rBMSCs/HGE-1 cells for dental application. *Colloid Surface B* 2020;188:110723.
9. Junpeng Ge, Fan Wang, Zhiyan Xu, Xuening Shen, Chao Gao, Dongliang Wang*, Gangfeng Hu, Jinlou Gu, Tingting Tang, Jie Wei*. Influences of niobium pentoxide on roughness, hydrophilicity, surface energy and protein absorption, and cellular responses to PEEK based composites for orthopedic applications. *J Mater Chem B* 2020;8(13):2618-2626.
10. Xinke Lv, Xuehong Wang, Songchao Tang*, Dongliang Wang*, Lili Yang, Axiang He, Tingting Tang, Jie Wei. Incorporation of molybdenum disulfide into polyetheretherketone creating biocomposites with improved mechanical, tribological performances and cytocompatibility for artificial joints applications. *Colloid Surface B* 2020;189:110819.